

THE
PRACTICE
OF
GARDENING

Explained to all CAPACITIES;
Including the newest IMPROVEMENTS.

BY W. H. H.

GENTLEMEN, who have small Gardens, may
make themselves Masters of the ART, and
manage them with little Expence, to their
Satisfaction:

AND

The common GARDENER be enabled to go
through his Business with Credit.

WITH

Those Secrets which GARDENERS observe in their
Practice, though none have taught or published them.

CONTAINING

The raising and entire Culture of tender ANNUALS,
Hardy PERENNIAL PLANTS, curious SHRUBS, and the
choicest FLOWERS, from the Seed to their Perfection,
The making of HOT-BEDS, and the whole Art of raising
CUTTINGS.

By THOMAS PERFECT, Gardener,
Inventor of the new Chinese Parterres.

LONDON:

Printed for R. BALDWIN, in Peter-nether-row; and
J. JACKSON, in St. James's-Street. 1739.
[Price One Shilling and Six-pence.]

FRANCIS GARDNER

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FAMILIARLY EXPLAINED.

THE INTRODUCTION.

BOOKS of GARDENING are tedious ; and difficult to be understood : and the best of them are very expensive. They are beyond the reach of many a working gardener who wishes to improve himself ; nor is it worth a gentleman's while, who raises a few flowers for his amusement, to purchase them : neither would it answer either his purpose, or the others, if they did.

THESE writers in general are obscure ; for two reasons : they do not chuse to reveal the true secrets of their art, for they are not willing to make every body a gardener, tho' that is the pretence of their writing ; and even where they chuse to be more candid, they express themselves in such a manner that a common reader cannot understand them.

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them. They talk to those who want to learn the business, as if they already understood it, and therefore they are useless.

THIS is the reason why the practice of gardening succeeds so poorly, while it is pretended to be explained to every one: and for this reason the present short account is published, which contains the whole without reserve, and is so plain that any body may understand it.

CHAP. I.

The Division of a PLEASURE-GARDEN.

AGENTLEMAN who has a pleasure-garden, is to consider it under four articles. He is to have, 1. Hardy plants, and 2. Flowering shrubs, which stand all the year in the borders, 3. Tender annuals, which are to be raised in hot-beds, and brought into the common borders during summer; and, 4. Choice flowers which are produced in a nursery, and afterwards planted in particular beds.

Of the first sort, or hardy plants, that stand the winter, are *Campanulas*, *French honeysuckles*, *Hollyhocks*, *Columbines*, *Sweet-williams*, *Wall-flowers*, and the like. These are to be raised from seed in a nursery, and brought into the garden the season before they are to flower.

Of

Of the second kind, or *shrubs*, are *Roses*, *Honeysuckles*, *Lilac's*, or the like, which are to be raised from layers or cuttings, or from suckers, in the same nursery with the hardy plants.

Of the third kind, or tender annuals, are *French and African Marrygold's*, *Balsams*, *Globe Amaranths*, and *China-asters*. These are to be removed from one hot-bed to another, till the season growing warm, and they gathering strength, they are at length planted in the borders, and thrive as if they had been raised there from the first.

Of the fourth kind, or choice flowers, are *Auricula's*, *Carnations*, *Tulips*, *Anemones*, *Ranunculus's*, and the like. These are all perennial, and to have them in perfection, they must be raised from seed in a nursery, and in due time brought into the garden.

UNDER these four heads may be comprehended the whole practice of common gardening; and as each class of these has a particular course of culture, the business may accordingly be divided into four kinds:

1. The raising tender annuals on hot-beds in spring.
2. The raising hardy biennials or perennials in the nursery in the open ground.
3. The management of choice and curious flowers: which differs no way from the former, but in that it requires more time and care: and,
4. The propagating trees and shrubs, by cuttings, layers, or suckers.

knows how to do these four things, is qualified to take care of any common garden, and when he rightly understands the culture of one plant of either class, he will know to manage them all.

ANY plant in the world is reducible to one or other of these four kinds, and therefore all gardening may be comprised within this moderate compass. Those who have extended it to large volumes, have delivered separately the culture of every plant: but this is only repeating, many times over, the very same directions.

CH A P. II.

Of the Disposition of a GARDEN.

BEFORE the care of raising plants, there naturally comes the provision of a soil for them to grow in. The garden must have good mould, and the proper conveniences, else no art can give it beauty. If the borders be poor, bring in some old well rotted dung, mixed with some rich and fresh pasture mould, and a good quantity of that rotten earth which is found under old stacks of faggots. These should be well mixed together, and then dug into the ground, in such quantity as may appear necessary: more when it is poorer, and less when it is something better.

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LET the ground be open to the south, south-east and south-west, but well sheltered against the north and north-east. If former ill management has suffered trees or walls to those quarters where it should be open, let them be lopped, taken down, or removed; and if there wants shelter on the other quarters, let it be given by a plantation of forest trees, or by walls.

THIS ground will feed and defend the choicest plants which bear the open air in our climate: and the next requisite is water. Ponds must be sunk in proper places; and they should be shallow and clayed at the bottom. If nature has given such, it is very fortunate; if not, they must be provided. Any water will do that has stood some time in such places; even pump-water itself: for it softens with the air and sun. In a ground of any extent, there should be two or three of these; because the labour of carrying water to a distance is very great, and when gardeners neglect it, the plants fade.

ALL that is required farther, is a nursery and a place for hot-beds. A piece of ground about an eighth part as big as the garden, will serve for a nursery; and one but half as big as that, will be sufficient for the other purpose.

THE nursery should lie to the south-east, and be well sheltered from the cold quarters; it should be hid from the garden, because there

there is no beauty in it; and there should be a little of the same enriching ingredients allowed to the mould, that are used for the borders in the garden. It must not be so much; for the plants will thrive better for being removed into a somewhat richer soil. It is a custom for this reason to let the nursery have a very poor ground, but that is wrong; as extremes commonly are. Mr. *North of Lambeth* has a nursery where the soil is very rich; and upon enquiry, I find no plants succeed better than those which have been brought out of his ground. On talking with that experienced nurseryman, he gave me the following reasons: That if seeds be sown in a poor soil, the first shoot will be weak; and when they come to be removed out of the seed-bed into a nursery-bed, they are hardly able to get over the check of it: whereas if they are first raised in good ground, the original shoot is strong, and the power of vegetation soon gets over the check of that and the other removals. This is agreeable to reason, and he found it true in many years practice. In short, such as the first shoot is, such the tree will be; and the old practice of keeping a nursery poor, is wrong. But moderation must be the rule; and though the mould of this spot should be good, it must not be equally rich with that of the garden.

THE aspect determines where the nursery must be placed; but the spot for the hot-beds

beds must be chosen according to convenience: it must be a warm corner of the ground, near the borders, though hid from sight; and it must be near the stable, or the place from whence the dung is to be brought. The closer it is to the borders, the easier it will be to remove the plants with good balls of earth to their roots; and they will always take the sooner, the better the old earth is preserved about them. There is no piece of ground so small, but this division may be put in practice; and setting out right, all the rest will be easy. The ground being prepared, we may proceed to the four methods of culture by which the plants are to be raised.

SECTION I.

The HOT-BED Culture.

THE flowers of the latter end of summer and autumn, are mostly natives of warmer climates, and their roots perish in winter. They are to be produced every year from seed; and as our spring is too cold for them, we are obliged to raise them with the assistance of heat and shelter early in the spring, that they may be forward in the beginning of summer, so as to flower in autumn; and after having decorated our garden for the two latest months, may ripen their seeds before the frost nips their roots. This

is the reason of the hot-bed culture, which is to be performed in the following manner.

CHAP. I.

The making of the HOT-BED.

THE hot-bed is a bed of mould warmed by the vapour of dung, and covered from the air by a frame. The mould should be the same with that of the borders of the garden, but it must be skreened very fine; and the first care is this: In the month of January a sufficient quantity of it must be brought into the hot-bed quarter, and laid in a heap. There will be required for these plants a succession of three hot-beds; and there should be as much mould first laid in, as will be sufficient for them all. The frames should next be prepared. The number or bigness of these must be proportioned to the quantity of plants intended to be raised; but care must be taken they are well put together, and the glasses shut close upon them. This will bring on the time to the middle of February, and the dung should then be prepared, and the ground open'd for the beds. Get in a good quantity of coal-ashes sifted, but not very fine, and save the cinders in another heap: then bring in three or four loads of dung, more or less, according to the ground, and let it come with the litter among it; and the wetter it is

is with the urine the better. Any dung of horses will do, but that of high-fed coach-horses is best. It should be brought directly from the stable into the ground; and as this is wheeled in, some of the fine ashes must be sprinkled over it: about five pecks to a load of dung should be thus mixed in well among it.

WHEN all the dung is made up into a heap with this mixture, let it lay eight days to heat.

THEN mark out the place where the beds are to be made: dig out the mould one spade deep in a long square, of the shape of the intended bed, and lay it away. Throw some of the cinders into this trench, and spread them even with a rake to cover the bottom about two inches: then lay in the dung upon this bed of cinders: take it up with a fork, and shake every forkfull as it is taken from the heap. By this means the longest stuff will come first, and the shortest, which is the richest, will be left for the last, to make the top of the bed. Spread the litter even as it is thrown into the trench, and beat it down well at times with the back of a spade, to make the long stuff lie close and compact together. Raise the bed of dung in this manner about a yard high, and spread the small stuff which comes last, and is almost all dung, even upon the surface.

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THEN bring on the mould from the heap laid up for that purpose, and cover the dung five inches deep.

THE bed being thus finished, the frame must be put on, and covered with the glasses: thus let it lie four-and-twenty hours to settle and warm the mould; then lay the surface perfectly level, and scatter on the seeds moderately thick: the Balsam, Amaranth, China-aster, and French-marygold, with the several other kinds, may be all sown together, for the same management will raise them: but it is best to divide the bed into as many squares as there are kinds, by drawing slight lines over it, and in each square to sow one kind of seed. When the seeds are all in the ground, some of the same mould must be sifted carefully over them till they are covered a third part of an inch. Some seeds require a little more than others; but this thickness in a hot-bed will answer generally for all. The glasses must be raised considerably in the day-time to let out the steam, and to let in fresh air, which is essential to the seeds well growing: in the night they must be shut down, but not quite close, unless the weather be very severe indeed; and even in that case they must be opened again in the morning. The warmth and moisture of the mould will soon bring up the plants, and then a new caution is required to preserve them.

WHERE they have risen very close, some must be pulled up. By this time the extreme heat and steam of the bed will be abated. The glasses may be kept close down all night; and there will require only a moderate raising of them for air in the warmest time of the day. Hot-bed plants require a different management at their various periods: in this state they must be kept pretty close, for they are in no danger of being drawn up weak yet; and the seed leaves require but little air.

WHEN the plants have a few days growth they will be fit for removing; and there must be another hot-bed provided for them: this should be considerably larger than the first, because the plants must stand farther asunder. Let the bed be made up in the very same manner, but let it be covered, five inches and an half deep, with the same fine mould as the first. Cover it with the frame, and shut down the glass, and let it stand three days, that this thickness of mould may be thoroughly warmed.

THEN in the beginning of the afternoon remove the plants. Open small holes a finger's length deep in the mould, at three inches and a half distance every way from one another. Take up the young plants out of the first hot-bed with the point of a trowel, and immediately set them in this, one plant in each hole. Take care not to break the

tender roots in taking them up; nor to double or crush them: in setting them in, bring the mould carefully about them; and when they are all in, give the whole bed a very light and careful watering: taking particular care not to beat down the plants: then close the glasses and leave them for the night.

ABOUT nine o'clock the next morning raise the glasses a little way; at noon cover them with matts that the sun may not scorch up the plants, and raise them a little higher; toward evening wipe the wet off the insides of the glasses, that it may not fall back upon the plants, for it is always injurious to them.

IN this bed they must stand about three weeks; and this must be their constant management. The glasses must be let down at night, and kept up always a little in the middle of the day. They must constantly be wiped before they are shut down for the evening; and the degree of opening during the day, must be more or less according to the weather.

THE plants must have as much of the free air as they can bear without hurt, and the tender kinds will soon shew if there be too much allowed them. If the mould grow dry, they must be watered gently and carefully. The heat of this bed will decline at the end of about three weeks; and there should, at that time, be some fresh dung laid to the sides of it; for the plants are to be removed

removed from this hot-bed to another, and the mould of this must therefore be kept in some degree of warmth.

THE plants having been sown in the end of February, will be by this time of some strength; the season will also be growing toward summer; another bed must be prepared for them about a week after the dung is laid about the old one; and this will keep them till they can bear the air. This last hot-bed must be made in the same manner as the first, but with less dung and more mould. It must be considerably larger than the former, because the plants will require a much greater distance; and there must be a depth of mould for the roots. The dung of this bed should be about two foot in height, and the mould seven inches and a half deep.

WHEN it has stood covered one day and night, open holes in it at seven inches distance, and lay up the mould by the side. Take up the plants out of the former bed with large balls of earth about the roots, and set them in this with a great deal of care; draw the mould about them, and give them a careful watering. Cover the glasses with mats, and raise them a little in the middle of the day, but keep them close at all other times till the plants have taken perfect root; then let them be every day opened more and more at noon, and left open longer. If the plants be kept too close, they will run up weak,

weak, and be ill shaped. In this bed they must stand till the latter end of May, and all that time they must be watered frequently. The glasses must always be shut down at night; and when the cold is severe, they must be covered with mats. The more air is let into them in the warm hours of the day the better. Toward the end of May the hardier kinds may be removed out of this hot-bed at once into the borders of the garden, chusing the evening of a mild day. Large holes must be opened for them, and they must be planted with care: they must be taken up with a good ball of mould, and when they are planted again must have careful waterings, from time to time, till they are thoroughly well rooted in the ground.

THE removal of these out of the hot-bed will give more room to the tenderer kinds which require to remain longer in it: these must be thin'd where they are closest, taking up every third or fourth plant; and setting these immediately again in the parts of the bed left vacant by taking up the others. The new planted ones must be watered frequently, and all the rest at least once in the day; and the glasses must be opened more and more every day, but the top shaded with mats when the sun shines upon them. After this bed has been made and planted a fortnight, let some mowings of short grass, or any like matter, be piled up round the sides of
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of the dung, this will bring on a new warmth and fermentation, when that of the dung begins to decline: and it will be enough for keeping up the growth of the plants, yet so moderate, that they will bear removing afterwards out of the bed without danger.

WHEN they have stood three weeks or somewhat longer in this bed, another parcel must be planted out into the borders. Chuse the hardiest of those which are now left, so that only the most tender and delicate kinds will be left in the bed. These must be taken up with more care than ever, because being larger, they will be apt to receive a greater check in the removal: a large hole must be open'd for each, and the plant must be taken up with a great ball of mould, and planted without injuring the roots. They must be watered frequently after this, till they are thoroughly settled in the new ground: for if they get a check in their growth at that time, they never make good plants afterwards. Frequent watering is the great article, but the season may be a great advantage. The principal danger is from the sun, therefore they must always be planted in an evening, that they may have the night for striking; and if a cloudy time can be chosen, it is much the better. The difference in this respect is so great, that they should be planted two or three days sooner or later, according to this accident.

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THERE will now remain in the bed only the tenderest kinds, and it will be time to get these into pots. A sufficient number of small pots must be provided, and they are to be filled with mould from the first heap; the leavings of which having been now so long exposed to the air, will be much richer than at first, and very fit to receive them.

TAKE up the plants carefully one by one, and set them immediately one in each of the pots. This may be done in the bed, only lifting up the glasses. As each is planted, let the pot be set up to the very rim in the mould of the bed. The best method is to begin by taking up the plants which stand next one end, and then opening holes along that end to let in the pots as they are done, close to the wood of the frame, and as close to one another as they can stand; filling up the space between them with mould. This is to be continued till all the plants are potted; and if the pots be of a moderate size, they will in this manner fill the bed: there will be yet warmth enough in the dung to keep all in a due condition for some time, and as this dies off gradually, the plants will be the more fit for the open air into which they are soon to be removed.

THEY must be watered as soon as they are potted: this is to be often repeated, and they must be inured to the air. The glasses must be set open a great part of the day,

day, but when the sun is violent, they must be shaded with mats. In this bed they must be kept till the middle of July, defending them by the glasses from the cold of the nights, and giving them more and more air every day, till at length the glasses are to be taken entirely off in the middle of the day, when the weather is cloudy, and at last kept off entirely.

When the plants have born this some days, they will be in a condition to remove into the air, but this must be done with caution. A warm and well-sheltered spot in the nursery should be chosen for them, and the earth dug away a spade depth. The pots must be brought out in a warm cloudy day, and it will be best of all if there be some rain. They must be set up to the rim in this bed, and the mould laid in close among them. They must be watered every day, and they should stand thus a week. Then the pots may be exposed to the air by setting them upon the surface of the ground, and after this they may be set out in the places where they are to flower.

They must be watered every day, and they will now want no more care.

This is the method by which all annuals may be raised to their greatest perfection. Little care is usually taken, and therefore they succeed the worse. But this is not much. A little trouble will serve a great many plants,

and they will answer it very well in their beauty.

Two things now are necessary; 1. The care of their flowering; and 2. A provision for seed. Both are too much neglected in common use. Let the best plants be marked for seed; and let these be managed purposely for it. They must only be suffered to open ten or a dozen flowers: when these are well set for seed, all the rest that offer must be taken off in the bud. These plants must be watered very often, but never a great deal at a time: and when the seed is formed, and has got its due size, they must be set against a south wall where they can stand quiet; and they must have no more waterings. When the seed is thoroughly dry and hard, it must be gathered and kept for the next spring. If this can be taken each year, the stock will increase every season in beauty.

Those plants, which are intended only for bloom, must be treated in a contrary manner; they must be watered largely once a day, and no more: all the flowers, as they begin to fade, must be taken off with a pair of sharp scissors. This keeps the root in vigour. For nothing exhausts it like letting them set for seed: and the taking off these before that time, will produce more and more fresh bloom. When the season grows cooler, they must be removed into a place of shelter to keep them in blow as long as that

that can be. When the frost seizes the mould they will decay: but they will thus be kept longer than could be thought in bloom, and will produce four times the quantity of flowers that they would have done if managed in the common manner. There is nothing in this that a gentleman, ever so much unversed to gardening, may not direct a common labourer to perform: and these are the flowers which make the show of autumn.

SECTION II.

The Culture of BIENNIAL and PERENNIAL hardy Plants.

PERENNIALS are such plants as keep alive during winter in the root, and when once planted, are supposed to need little more care: but they may be made to flower much more elegantly with a little attention. The biennials perish when they have flowered, though they are two seasons in coming to that state. The same culture serves for both.

Of the hardy perennial kind we have named the campanulas, hollyhocks, and several others. The moth-mullien is a biennial. The seeds of these will all shoot in the common ground; and they are all to be sown in the same manner. Therefore this second culture

may be all delivered in, as moderate a compass as the first.

CHAP. II.

Of preparing the Ground.

CHUSE out a place of the nursery, that lies a little slanting from north-west to the south-east, and very well defended from cold winds. Let it be of the common mould of the place, that is, of the same nature with that of the garden, but not quite so rich. Turn it up in ridges all winter, and in the beginning of March lay it all level; let it be well dug and raked, and then tread up a path along the middle, and divide the ground on each side into beds four foot and a half wide. The extent of this spot must be proportioned to the garden; but in this one place, and with one and the same care and management, may be sown and raised all the common hardy perennial and biennial plants.

In the middle of March let the seeds of the several kinds before named, and of any others that may be desired, be sown in this manner. Chuse one or more beds for each, according to the quantity intended to be raised, and rake off about half an inch of the surface; then in the evening of a calm day sow them thus: Mix with the seed three times as much fine sifted and dry mould; it

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will make them spread the more evenly. Sow them by hand with this mould pressed thick, and when the surface is evenly covered with them, lift over them the mould that was first taken off from the bed. This will cover them a third of an inch, which will be perfectly sufficient. When the seeds are covered, lay two or three pieces of black thorn bush upon the bed to prevent accidents, and if in two days there does not fall any natural shower, water the bed. This must be done very gently, and the pot should have a fine pierced nose without flaps, for if the water run out in any part in a stream, it will wash the seeds out of the ground where ever it falls. The bushes need not be removed for this watering.

ALL the seeds of the biennial and perennial kind being sown and sheltered in this manner, the waterings must be repeated if the season is dry; and when the plants appear, the bushes should be lifted off the ground. They will not be wanted any more, they have kept off accidental injuries, and mellowed the mould, and this was all that was required.

WHEN the plants have a little strength, they must be thinned by pulling up such as are weakest where they stand too close; and they must have water whenever there want showers. This watering must be managed with great care; for if the plants are injured now, they do not well recover it; and a heavy

heavy watering may bruise them, or wash them out of the ground. They shoot up only leaves at present, for the stalk does not appear till the next year: but the rudiment of it is formed already; and if it be injured the plant will never be fine afterwards. As the plants grow larger they may be thinned again, taking up always the worst. The seed was ordered to be sown pretty thick for this purpose, that there might be choice of the best to leave for growth. If there be very sharp winds when the plants first come up, and the ground is not well defended by its natural situation, a reed-hedge should be set up to defend those which are in most danger: and if hard frosts happen which break the ground about the new-rising plants, a little mould must be sifted over to cover them again; removing it with a finger when it would bury the heart of the plant.

Thus the danger of the early spring will be got over, and all the rest will come very easy. The plants must be weeded carefully, and the showers of April will water them.

In the beginning of May they must be transplanted; and for this purpose a bed must be dug up and levelled, much larger than the first. The evening of a mild day must be chosen for this purpose; and if the weather be showery so much the better: the gardener may very well wait for this opportunity,

curity, since a few days sooner or later, will make no great difference.

Holes must be opened for them at different distances, three, four, six, or eight inches, according to the bigness of the plants. The roots must be taken up carefully, and immediately planted, and the mould must be drawn closely about them, and settled by a good watering.

DURING the summer the ground must be weeded as often as any growth of that kind is seen upon it. And some of these weedings may be done by hand, but one or two should be with a trowel breaking up all the ground between the plants at the same time that the weeds are destroyed.

If any of the plants send up stalks this first summer, they must be cut down close to the ground, for it is not their flowering season, and they will be weak and poor. The roots are to strengthen themselves in the ground this season, and nothing more is required of them.

In the beginning of October, let more ground be dug up for them, and let them be here planted to a greater distance. About twice the number of beds the plants already occupy, will be needful for this service: the ground must be dug up a full spade deep, and holes opened for the reception of the plants at double the distance of those in the former bed. An evening of a mild day should

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CHAP. II.

The Management of PERENNIALS. or are
to be removed at more frequent intervals

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good or bad ; but in the following years it will be supplied with certainty:

THE middle of February is the best time for making this plantation, for if it be delayed longer they will flower very poorly ; and with tolerable care there will be no fear of losing the roots when they are put in thus early. Let a mild day be chosen ; and if the season be very severe, let it be delayed till the extreme frost breaks : then mark the places in the garden where these plants are to stand, and open a hole for each a full spade deep ; and a foot wide. Take up as many plants as are wanted out of the nursery-bed ; bring as much of their own earth with them as can be done conveniently, and set them upright in the holes with the head of the root a little below the level of the surface of the border ; close the earth well to them, and sink a small hollow about the head of the root ; the ridge of earth round it will keep off the bleak winds ; and if the weather should again set in severe, there may be a little bundle of dry pea-straw laid over each plant.

THE morning after the planting every one must have a moderate watering. At the time of planting there must be some given, but that must be very little. These plants will require afterwards no other care than is taken of every thing else in the borders, and they will flower strong and well.

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THE great article is the care of those in the nursery, for the principal expectation is there. The beds must be kept weeded; and in very dry weather the plants must be watered. They will flower at their natural time, and the gardener will then know the value of the roots.

No plant should be suffered to blow more than four or five flowers this first season: this will be enough to shew their excellence, and they should then be cut down close to the ground for strengthening the roots. As they come into flower, the finest should be marked by thrusting a stick into the ground near the root; and such as are very poor should be pulled up and thrown away.

In the beginning of October those roots which are marked for having born fine flowers, should be taken up and brought into the garden. Large holes must be opened for these, and they must be taken up with balls of earth, and planted carefully. The succeeding year they will flower in their most perfect beauty, and the roots will have their full strength.

It is this year also that the plants ripen the most perfect seeds, therefore the very finest should be marked for that purpose. The ripening of their seeds will weaken the roots, but it is needful for a supply; and those which have been used for this purpose should be taken up, and
others

others planted for the next year in their place.

Those which are marked for seed must not waste the strength of the root by too much blowing; a few flowers will afford a sufficient quantity of seed, and it will be much better, than when the plant is loaded.

These plants must be well watered while the seed is growing to its bigness; and after that they must have very little, and for the last days none.

When the husks are quite dry, the plant should be cut up, and laid on a shelf in an airy room to harden. After a day or two the bushes must be taken off and laid separate to dry a week: then the seeds should be shook out, and these should again lie about ten days. Thus they will be perfectly cured, and they should then be put up for winter. The following spring they should be sown exactly in the manner before directed, and this should be the course from year to year.

The old roots will flower very well two seasons more, but not equal to the first bloom, and much less to such as shall be produced from the seeds of these. With the management here directed, the stock will be every year improving, and a very small piece in the nursery will supply these articles to the garden.

C H A P. III.

The Management of BIENNIAL PLANTS,

THESSE agree so entirely with the perennial in all respects, except only their duration, that the same management exactly serves them all but in the last transplantation. They are to be raised as the others by seed sown in spring; and they are to be in the same manner transplanted out of the seed-bed into a second piece of nursery-ground, but they should be brought in time into the garden. If these plants be kept all the summer in the nursery-bed into which they were transplanted from the seed-bed, they will many of them flower in the nursery, which is not intended, for they are not strong the first year, nor is the nursery a place for the flowering of these plants whose roots perish. To prevent this there requires one transplantation more the first year for these than for perennials. When they have been raised in the same manner with those, and in the same manner transplanted out of the seed-bed into another part of the nursery, they must not be suffered to stand there till autumn, but brought into the garden during the forepart of summer. They will naturally be removed out of the seed-bed in May; and when they have stood about five weeks in the new ground,

ground, it will be proper to take them into the garden. This must be done with care; and it will secure their continuing without a stalk till the next year. Toward the latter end of June let a cloudy day be chosen, and open in the borders of the garden as many holes as there are plants. Take them carefully up with a good ball of earth to the root, and fix the new mould well about them. Give them a good watering, and repeat it every day: they will strengthen themselves by this means during the summer and the winter following; and having had eighteen months growth before they flower, they will blow in the greatest perfection. Few who are not accustomed to the arts of culture, can imagine the advantage of this method of culture. I had the good fortune to see it two years ago in a very remarkable manner in the case of the common moth-mullien in a garden near *London*.

THIS is a wild plant in some parts of England, and produces under the hedges a long spike of handsome yellow flowers; but in the way I saw it raised, it exceeded in beauty all the kinds we bring in from abroad. Nature sows this plant in autumn, and it flowers the succeeding summer: the flowers ripen in July, the seeds in August; and these falling out as soon as the husks are dry, sow themselves in September, and the young plants appear in October, which flower the following

following July. Here is only a growth of nine months, from the first shoot to the flowering. According to the method here proposed, we give the garden plants of the same kind eighteen months; this is twice the time: the root has twice the strength, and the plant flowers with double beauty. The gentleman in whose garden I saw this plant in the summer of the year 1756, sowed it in the spring of 1755; the seeds were gathered from a wild plant the autumn before: they were sown in March, transplanted in May, removed into the flower-garden about the middle of June, and flowered the July of the succeeding year. The flowers were as big as a crown-piece, and of a yellow that exceeded the ranunculus. Every body admired the plant till they heard it was an English weed: and probably the seeds of these fine plants will raise a yet more beautiful progeny.

SECTION III.

The Culture by SUCKERS, LAYERS, *and* CUTTINGS.

NOTHING could be more natural than that part of gardening which multiplies flowering shrubs by the suckers that rise near their root: nature indeed makes the encrease unassisted, the gardener only removes the new plant to another place. This was the first

first method of propagation introduced into our Shrubberies; and from this came the other two. Where shrubs did not afford suckers, it was natural to try whether a branch buried in part in the ground, would not take root in time, and serve as a sucker: This was tried, and it succeeded; and thus came in the method by layers. Long after this Lauremberg proposed the way by cuttings: people thought him mad for saying a piece of twig stuck into the ground would grow; but they found it true on trial; and it is by far the most useful method of all. As it is not universal, the others must on some occasions be still used: We shall therefore propose them in their natural order.

CH A P. I.

Of Propagation by SUCKERS.

MANY of our flowering shrubs, and other kinds, send out a number of young shoots from the root, which make, as it were, a little thicket about them. These are a deformity to the original tree, and they suck in that nourishment which should go to feed its flowers and foliage. Therefore they ought to be cleared away, though they were not wanted: but they are every one capable of growing into a new shrub.

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THE best time of propagating shrubs this way, is the middle of October. Suppose there is an old lilac in the garden, and that it is surrounded, as is naturally the case, with suckers, in October dig up a small piece of ground in the nursery, and open with a spade large holes at two foot distance every way, laying up the mould at the side of each hole. Then in the evening of a mild day take up all the suckers from the old plant, and chuse as many of the finest as are desired to be raised. The best are those which are straitest and thickest in proportion to their height; and such as have grown farthest from the stem of the tree: trim the roots, and plant one in every hole, first throwing in a little of the loose mould from the side to make a good bottom. Drive in a fence-stake pretty close to each, and let it stand a foot and half out of the ground. Plant the sucker just as deep as it was naturally where it rose from the old root, and tie it to the stake in two places with some soft matting. Thus plant the whole number intended, and then give them all a thorough watering: repeat this every other day for a week, and they may then be left to nature. They will strike root during the remainder of the autumn, and will be found full of life in the following spring. All the care they will require farther is, to keep the ground weeded between them, and in very dry seasons to give them

some water. They should stand three years in this bed, and they will then be fit to plant in the garden. To this purpose they must be taken up at the same season, that is, late in autumn; the fibres trimmed all about the roots, and the mould well settled round them by careful laying in, and by a good watering. A stake should be also thrust into the ground to tie them up; and if the weather be severe, the first winter some dry peas-straw should be laid about the root, and kept down by pegs. This is the whole culture by suckers; and thus very fine plants may be obtained from many kinds of our shrubs; but not from all: therefore other methods are also necessary.

C H A P. II.

Of propagating SHRUBS by LAYERS.

WHEN shrubs do not yield suckers, and will not take by cuttings, recourse must be had to laying. And this may either be done from the branches of the shrubs kept for flowering, or from such as are planted for that purpose only; and are called stools.

THIS latter is the practice of nurseries where great numbers are to be raised for sale: the other is more the purpose in a gentleman's garden.

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THERE are two seasons for this work, the beginning of autumn, and early in the spring : the first is best for hardy trees, and particularly for those which hold their leaves all winter ; the latter for the generality of other kinds.

IF the gardener has any of the more elegant flowering shrubs, which he intends to encrease, the best method is by layers ; and it should be done in this manner : Chuse out some of the branches which grow near the ground, or can be bent down to it with the least violence ; and which have such a length that they can bear to be buried in part five or six inches deep, and have a piece of half a foot in length left above the ground at the ends. Lay these down in the manner they will come most naturally to the ground, and make a mark along the part at which each lies ; mark also the part of the branch that will be under ground in the laying. Then open as many trenches as there are branches to be laid, carrying them strait along where the marks were made ; and opening each a full spade deep : let the mould be very rich, and it must be well broke in the working. Let the trench be five inches deep all the way. Give each branch a slight twist in the middle of the place where it is to be under the mould. This must be done in so careful a manner, as to just crack the rind, and no more. Then with a sharp penknife slit the
branch

branch thro' in the same place for an inch and half in length; and cut some hooked pegs to keep it down. Bind down each branch in a careful manner till it touches the bottom of the trench opened for it; and peg it fast in that place with one, two, or more of the pegs, according to the danger there is of its getting up by the spring of the wood. Then cover in the mould, pressing it moderately close about the branch with the hand; and to finish all give it a gentle watering. The next day water it somewhat more largely; and after this give it only the common care of the other plants. The end of the layer that is left out of the ground, will shew whether it continues in health; and all that is required more is keeping the place well covered with mould; and in the dry time of the succeeding summer watering the ground at times; for in the winter there will be very little need of this.

One year will serve in general for the giving them good roots. If the branches have been laid in autumn, they may be taken off from the old tree the autumn following; and planted in a nursery-bed if they be slow growers; or if not, they may be at once set in the garden where they are to remain. Roses laid one autumn, and the layers taken up the next, will flower the succeeding summer; and so it is in many other kinds: but

according to their natural slower growth others require more time.

If layers be desired from some curious shrub which has no branches near the ground, the method is this: Fix upon one or more of the branches for laying, and by pulling them gently down with the hand, observe how far they will naturally yield; then set up a tressel under each branch, and place upon it a trough of wood a foot deep, filled with very fine mould. Let the tressel raise this so high, that the branch can easily be brought down to it; and raise as many of these as there are branches intended to be laid. Then twist and slit every branch as before directed, and lay it down in the trough so that it may be covered five inches with mould; and leave a piece of a foot long standing out. Fasten this down with sticks thrust across the trough, and cover the branch with mould.

THIS must be watered more regularly and carefully than layers in the open ground, because the small quantity of mould in the box would otherwise quickly dry. The success of the whole depends upon keeping the earth moist: if it should be suffered to grow dry, even after the layer had shot roots, they would wither. If the care of watering be observed regularly, these layers will succeed as well as those in the common ground; and at the end of one year they may be cut off from

from the old shrub, and planted in pots, or in the open ground, according to their kinds. This method extends the propagation by layers to almost all kinds of shrubs and trees; and when it is well managed, it will always succeed.

CHAP. III.

The Method of propagating by CUTTINGS.

THE benefit of the method by layers is very plain, but the operation is tedious and troublesome. This has introduced the short and easy practice of raising shrubs from cuttings: and wherever it will succeed, it is greatly preferable to the way by layers, because less time and trouble are required, and a much greater number may be raised this way than can the other.

NOT only shrubs and trees, but all plants which have woody stalks, may be propagated by this method: and it may be done almost at any season of the year; but the best time is in May and June, that the cuttings may take root so as to be fit for removing before winter. There are very few kinds which, being managed with care, will not succeed in this manner. All cuttings require shade and water; and the more tender they are, the more perfectly they require to be sheltered. For the common kinds a small bed in
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the nursery hooped over and covered with canvas, will answer very well. The most delicate will require to be covered with hand-glasses, or to have the assistance of a hot-bed. Those which will not strike by one of these ways, usually will by another, and there are very few that will not one way or other succeed.

In the middle of June let a piece of the nursery ground be dug up very well, and make up a bed of three foot broad, and of such length as may hold the proper number of plants: have some hoops ready to place over the bed, and a piece of canvas to cover them; it must be so large as to cover the hoops entirely, and to fall over to the ground at each end. Then take cuttings from all the shrubs and plants intended to be propagated in this manner: Chuse the straightest, evenest, and most vigorous young shoots of the several kinds, and cut them off about seven inches long. Clip off the leaves from the lower part of each, and twist the bottom of the shoot: then with a fine awl pierce the bottom of the stalk through in several places up to an inch and half in height.

PLANT these two inches and a half deep in the mould of the bed, at a small distance from one another, and continue till the whole number intended are in the ground; close the mould very well about them, and
give

give them a good watering. Plant the hoops over the bed, and lay on the canvas upon them, covering them entirely; thus let them stand the first night. In the morning lift up the canvas at one end, and along the sides, a little way from the ground; and keep it raised by bricks or pegs, that they may have some air but no sun. In the evening lift off the canvas, and give them another watering.

This practice is to be continued; only giving them more and more air from time to time, till they have taken root. The mould must never be suffered to dry about them, nor must they be exposed to the sun; but the more air they have, after some days, the better. In this manner they will take root in six, eight, or ten weeks, according to their kinds: and then the greatest hazard is over: but they must still be shaded from the sun in the middle of the day, and watered frequently. In the beginning of September they must be transplanted, and they must then be removed according to their different degrees of tenderness or hardiness, into pots, or at once into the open ground: or by a milder course into warm nursery-beds that will raise them to more strength. It will be best to begin with the most tender. These must be potted: and for this purpose as many small pots must be prepared as there are of those plants, and filled with mould. The cuttings

cuttings must be taken up one by one, and great care must be taken to take up a good ball of earth with each. They must be planted upright, one in each pot, the mould must be carefully closed about them, and they must be set in a warm sheltered place, and shaded from the sun by a canvas, or other contrivance. Here they must stand the winter, and as spring advances, they must be taken out of these pots, with the whole ball of earth, and planted in larger. The method is this: Have a set of larger pots ready, with a heap of good mould; put a little of the mould into the bottom of one of the pots, and shake out the whole ball of earth in one of the small pots; trim the fibres round the surface, set the ball upright in the larger pot, and fill in the rest with more of the mould. Change the pots of all the plants in this manner, and set them in the same place, shading them from the sun in the middle of the day, and water them constantly every evening. After this they will be soon established into good healthy plants. This is the whole management of the tender kinds, which are kept in pots always, as Geraniums, and the like. A second sort are such as require shelter while young, but will bear the open air when grown up to some strength. Of this kind are the Cistus, called Rock-rose, and the like. These should next be taken out of the bed, and they must be

be managed just as the former set; only that in the succeeding spring, when the others are put into larger pots to be kept for good, these are to be planted out into the borders. They must be taken out of the pots with the entire ball of earth, and planted upright with care, fastening the stem to a small stake thrust into the ground to keep them steady. They must be well watered till they have taken root, and they will then need no more care, but will grow up into good shrubs.

The third kind, which are hardier than these, but not absolutely suited to our soil as natives, should be next taken up and removed into a nursery-bed. Of this kind may be reckoned the hardy shrub St. Peter's-wort, and some others. When the plants of the two former classes are removed out of the first bed, a place must be prepared for these; for they need not have pots, but only require a good spot of open ground. Look out a shaded and perfectly well sheltered part of the nursery, and dig up a bed a full spade deep, breaking the mould very fine. Open holes in this at five inches distance every way; then take up the plants, each with a ball to its root: place one in each hole, and keep them perfectly well watered till they are established in the new ground: then leave them to nature. Only if the winter should prove extremely severe, shelter them a little in the worst weather.

IN spring take them up with large balls of earth to the roots, and plant them in the garden in the places where they are to remain, watering them constantly till they are new rooted.

LAST of all take up the plants of the fourth or hardiest kind, and plant them at once in the borders. The *Althæa Frutex*, and some others, are of this kind. Let holes be opened in the borders where they are to stand; take them up one by one with good balls to the roots, and plant them in these openings: water them every day till they have taken root, and they will succeed without farther care. Here is a plain and easy method by which a garden may be stocked with all the kinds of flowering shrubs almost without expence. Cuttings may be had from any garden, and one bed raises them: they are all to be transplanted from thence at one time; and the same method of culture afterwards raises them to perfection. Thus easy is all gardening when the principles are once perfectly understood.

SECTION IV.

The Culture of the choicest FLOWERS.

LAST of all we are come to the management of the most elegant productions of the gardener's art, which depend for their excellency

excellency upon the same principles of culture, though more time and care are required in raising them than the other kinds: And it has appeared most proper to treat of them last, because they will best be understood after the others.

THE common gardener is content to raise these from off-sets, or from parted roots; but this deprives him of all possible means of improvement. There requires time in the raising them from seed, but the trouble is very little; and this is the way by which new kinds are obtained: We propose taking off a great deal of the trouble of gardening, and yet directing the reader to the perfection of the art. We shall therefore give the plain method of raising these elegant kinds from seed, and bringing them to their highest perfection: and this method is so far the same for all the several kinds, that one care, and one piece of ground, may serve for the whole collection.

THE flowers of this kind may be reduced into two classes; the fibrous, or tuberous; and the bulbous rooted. The first kind comprehends *Auricula's*, *Ranunculus's*, *Anemones*, and the like; the latter *Tulips*, *Hyacinths*, and those others which have grassy leaves. The culture of each of these flowers is delivered separate by those who have written on this subject hitherto; and a different kind of mould is directed for the reception of each

seed; but I have found that one kind of earth serves them all, and one method of culture.

CH A P. I.

Of sowing choice Flowers.

PREPARE the mould for these flowers thus. Pare off the turf in a dry piece of rich pasture ground, and dig up the mould as deep as it goes; this is usually one full spade's depth: take care to go no deeper, and not to mix any of the bottom with it. In the beginning of March dig up five loads of this; mix with it three loads of river mud, one load of old cow-dung, and the same quantity of rotten mould dug up where an old faggot-pile has stood. Sprinkle over this four bushels of flacked lime, and a peck-full of brine made of a peck of salt.

THE quantity may be larger or smaller, according to the number of plants intended to be raised; but this is the best proportion: let it be all well work'd together, and thrown through a coarse screen. And thus let it lie till May: then turn it very thoroughly again: it will also require another turning in July; and this will compleat it for service.

PROCURE seeds from some person on whom you can depend; they must be saved from the finest flowers that ripen any, for some of the very finest do not; and laid carefully to harden,

harden. Each parcel must be put up separate, and laid by till the latter end of July.

Then chuse a part of the nursery which is open to the south-east, and screened from all other quarters: dig away the mould, make up beds with that which has been all this time preparing for that purpose, and mark them number 1, 2, 3, and so on. Each must be a yard wide, four inches deep in mould, and made a little rounded. When these are all ready begin sowing. Rake off an inch of mould from the surface of the first bed; mix some of it with the seed intended to be sowed, and scatter it on evenly in the evening of a mild day. From the seventh to the seventeenth of August is the best period for this service. Sift on as much of the mould that was raked off, as will cover the seeds a third part of an inch, and lay a piece of thorn-bush upon the bed. Thus far it is the same with the method of raising the common perennial plants. It was before observed, that the difference is only in point of time and care. Sow every seed in this manner, and finish all the beds.

The seeds of these choice flowers are usually sown in pots and boxes; and the common writers on gardening give that direction. I have tried both, and find the open ground is best. The earth dries too fast in these small parcels, and the seeds
grow

grow better when they have the vapours from the open ground.

ONCE in three days water the beds in this manner: Lift off the bushes, and lay a piece of old matting over the bed. Water upon this lightly and carefully, and when the wet has got through lift it off, and so water the next. The ground will thus be moistened without disturbing the seeds. If gentle showers fall naturally, these waterings may be omitted; but if heavy rains fall, some mats or cloths must be laid over the beds upon the thorn-bushes, to keep off the violent force of the drops.

A VERY small piece of ground will answer for this, and therefore the case is easy. Writers direct a different time for sowing the several kinds, but this season with this method suits all.

THE young plants will appear at various times, but the dangers to which they are exposed are the same, and one kind of protection is required for all. No weed must be suffered to grow upon any of the beds. When the plants rise very close, some may be pulled up and planted in a more vacant place. When rains fall heavy, mats must be laid over the thorn-bushes; and as the frosts come on, the same care must be used to guard against them. In severe weather the beds must be kept covered up entirely; but when it is milder, they must have the free
air

at the middle of the day. Towards spring a reed-hedge must be set up to the north-east of the beds to keep off the nipping winds from that quarter. Thus they will be kept till the beginning of the spring; and they must then be gently watered at times; and if the noon-day sun appear to have too much power, they must be shaded from it.

Thus all the kinds will be kept in good condition till about June the next year. At this time the *Auricula's* and *Polyanthus's* which retain their leaves, must be transplanted. Another bed like the first must be prepared for them; and they must be set at four inches distance one from another. They must be watered carefully, and shaded till they have taken root. After this no more is required than to keep the ground clear from weeds; and thus they will be gathering strength till the next year.

THESE being removed, the other beds must be examined. The leaves of the young *Anemones*, and the rest, will now be decayed; they must be clipp'd off, and the surface of the bed laid smooth, and a little of the same mould sifted over the whole; about a third of an inch in thickness. Thus they must remain till autumn, keeping the surface clear from weeds. At the beginning of October sift another new coat of mould over them, of the same thickness with the former,

former, and take the same care of the beds this as the former winter; only as the plants are stronger, it need not be so strict. The plants which have been removed into the nursery-beds must also be sheltered during severe weather in the depth of winter, and the surface of all the beds must be kept clean from moss.

Thus far the culture of all these plants is the same; but as some of them are afterwards to be taken up at certain seasons, and treated in a manner different from those whose leaves remain all the year, it will be proper to consider their management in the rest of their growth, under the three distinct heads of the fibrous, tuberous rooted, and bulbous plants: for according to this distinction of the roots, the management of them varies in the succeeding time.

CHAP. II.

The Management of fibrous-rooted, annual

FLOWERS.

OF this kind are the *Arnicula*, and *Polyanthous Primrose*, with the like: the root consists of fibres, and therefore does not admit of being kept any time out of the ground. On this depends the particular management of these plants. The raising all the kinds from seed being alike, that has been directed

directed already. What we here call their farther management, regards their blooming. The Auricula being the most excellent of these, its culture may serve as a direction for all the rest: the principal difference between this and the Polyanthus, being, that the Auricula is kept in a pot, and the other in the open ground.

THE Auricula seed has been sown in August, the young plants have been removed in the June following, and are now, we suppose, in the nursery-bed into which they were set at that time. They are to remain there till the following spring, and the greater part of them will then flower. They will not blow fine, because they stand close; but it will be easy to see which will make another year the best flowers.

THE plants may, in this nursery-bed, now be distinguished into three kinds; 1. Those which have good flowers; 2. Those which have ordinary and indifferent ones; and, 3. Those which yet shew no bloom. Many of these last will prove the finest of all. Mark these with three kinds of sticks, and thus let the bed remain till the middle of July, then sort the plants according to their value. First take up all those which have been ordinary flowers, and plant them out in the borders of the garden. Then prepare as many pots as there are plants which have born fine flowers, and take these plants up carefully

fully with a ball of their own earth: plant them in pots of the same mould, and give them a gentle watering. The plants which have not yet flowered, may now be left in the bed without removing; they will stand the more free and clear for this taking away of the others; and they will gather great strength the succeeding spring.

THE beds must be kept clear from weeds, and the mould sometimes broke between the plants: if the autumn prove very dry, they must sometimes be watered, and a mat may be drawn over them in the severity of winter.

THE plants in the borders require only the common care of every thing else that is in the same place; but those which are potted must be managed more delicately. Set the pots under the shelter of a wall, or building defended from the north; and let there be a shed over them to keep off rain and too much sun. Here let them stand all winter. In the middle of February bring a quantity of the same mould, pare off the surface of the earth in all the pots an inch deep, and fill up the place with this, giving them now and then gentle waterings. If the frost be severe after this, there must be a canvas drawn from the edge of the shed to the ground, in front and at both ends. This must be let down in an evening, and taken up two hours after sun-rise.

Thus

True they will be preserved in the bud, and they will flower in perfection. When they blow they should be removed to a stage of shelves one above another, and open to the south-east.

Some will now appear less valuable than was expected; and let these be put into the borders of the garden. Others will be much finer: These must be marked for increase, seed must be saved from them for another sowing, and the off-sets carefully removed and planted in other pots, where they will make so many good plants. The time for taking these off is the beginning of April; and they must be managed just as the others.

THE roots left in the nursery-bed will now flower, and the best must be marked. These must be put into pots the July following, and the others planted in the borders of the garden. This is the whole culture of the Auricula: and thus all the fibrous-rooted choice flowers are to be propagated.

CHAP. III.

The Management of TUBEROUS-ROOTED FLOWERS.

THE Anemone, Ranunculus, and such others, have roots of a thick, solid substance, and irregular shape, nourished by fibres. These are called tuberous roots. They

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contain the rudiment of the plant which is to flower the next year; and they have so much substance to defend it, that they may be safely taken up after the flowering season in spring, and kept in a dry place till autumn. This gives an advantage to the flowers, and on this depends their particular management.

WE shall here take the Anemone for an instance. The seeds were sown in August with the others; the young plants took their growth together the first spring, and they have been refreshed and sheltered by a new coat of mould in summer, and a second in autumn. There we left them, and we are now to pursue their particular management. They must have some shelter if the winter be severe, and in spring they will shew themselves above ground in larger and much stronger leaves than the first.

DEFEND them well from the north and east; give them gentle waterings, and many of them will flower. Mark the roots into three kinds, as the Auricula's: 1. Those which promise fine flowers; 2. Those which seem indifferent; and, 3. Those which have not flowered.

WHEN the bloom is over, the leaves will soon decay. Toward the end of May they will be in a manner gone; then look over the bed, first taking up those roots which were marked for fine flowers: clip off the remains of the stalk and leaves, and wash
off

off the mould, and spread them upon a piece of canvas stretched above the ground in an airy room, where there is no sun.

NEXT take up the roots of the more indifferent flowers, and clean and dry them in the same manner. When they are very dry, put them up in separate parcels, and keep them safe till autumn.

LEAVE those roots in the first bed which have not yet flowered.

IN the middle of September make up two beds of the same mould, raise them five inches above the surface, and round them at the top. When the mould has lain a week to settle, dig it up again, level the surface as before, and plant the roots, the fine ones in one of these beds, and those of an inferior kind in the other. Plant the root two inches deep, opening the surface for this purpose with the point of a trowel, and cover them carefully with the mould: they should stand at five inches distance one from another.

IF the winter should be very severe, the beds must be sheltered in the worst weather. In spring more care is needed, for these roots, being planted early, will soon shoot for flower, and nothing is so injurious as frost and sharp winds to the bud. There must be hoops placed over the beds, and canvasses drawn over them in the bad weather. They must now and then have the benefit

nefit of watering, and always be open to the noon-day sun, which at this early season will have no power to hurt them. They must only be covered in bad weather, for the more air they can have safely, the better they will blow.

It will be now seen which are the finest flowers, for there is no certainty in the first blowing; not that the finest of the former year will grow worse, but many of the second bed will now shew themselves much better than they promised. No Anemone has its full strength till the second year's bloom, and no judgment can be formed till that time with certainty.

The roots left in the seed-bed will this year also flower, and they must be marked by two kinds of sticks in blowing, and afterwards taken up and managed as the others.

This is the whole culture of the Anemone. Every summer the roots are to be taken up and dried, and every autumn planted. They will encrease, and the separated parts may be raised to flower like the off-sets of Auricula's, or other plants: and thus there will be a continual encrease of the quantity. But the way to raise new and fine kinds must be by sowing: therefore as double Anemones do not ripen seed, it must be saved from the single ones; many of these appear with the double, and some of the best plants must be preserved for this purpose. The
trouble

trouble of sowing is so little, that it may very well be repeated every year.

CHAP. IV.

The Management of BULBOUS-ROOTED FLOWERS.

THES E have a large roundish root, composed of a solid fleshy substance, or of many skins one over another. The rudiment of the future plant is preserved so well in these, that they may, as the tuberos ones, be taken up after flowering, and kept out of the ground till autumn. This is of the same advantage to the flower as in the other instance, and the management is in a great measure the same, only the seedling plants are much longer before they flower. This makes the management somewhat different. We shall select the Tulip for an instance.

As we directed all the seeds to be sown at the same time in separate beds in the nursery, we are to suppose Tulip-seed had its place among the rest. These seeds have been sown in August. The young plants will appear the following April like blades of grass, and these first leaves will fade in about five weeks. The surface of the bed should be then cleared of all young shoots of weeds or moss, and some fresh mould sifted on to cover it a third of an inch. In Sep-

tember the surface must be again well cleared of every foulness, and a new coat of the same mould sifted on of the same thickness. All this time, and all the following winter, the minute roots will be gathering strength. In spring they will again shoot up small leaves: these will fade as the heat of summer comes on, and then the roots are to be taken up: this must be done with care, for they are yet very small.

A NEW bed must be made for them; and this should be five inches thick in mould: the bottom should be the natural earth well rammed, that it may be even and hard: the roots must be planted in this when they are taken out of the other bed, which will be about the beginning of July. They must be set at three inches distance, and covered an inch and half above the crown. At the latter end of September, a fresh covering of half an inch of the same mould must be given them, and the same early in the spring. After this the bed must be watered at times; the leaves will appear again in March, and fade about July: then a fresh coat of half an inch of mould must be laid on, and the same again in autumn. The next summer they must have just the same management; and in the summer of the succeeding year they must be taken up again.

THE

THE roots having now four years growth, will be of some considerable size. A new bed must then be made for them just as the former, only two inches deeper in mould. They must be planted in this three inches deep from the crown to the surface, and they must stand six inches asunder.

THEY must remain two years in this bed, keeping the surface constantly clear from weeds, and giving them a new coat of mould every summer and autumn. This brings them to their perfection, and the next year they will flower. Some will blow sooner, but they are the worse for it.

THE roots must be taken up in the summer of this last year, and laid on a canvas to dry. They should be kept out of the ground till autumn, and then planted in beds of the same mould two foot deep, and rounded at the top: the roots must be planted seven inches deep, and ten inches distant from one another. The next year they will blow in perfection as to shape and bigness; but they will not come to the beauty of their colours till after one or more years of farther growth.

EVERY season the roots must be managed as already directed; and in every summer's blowing there will be some seen broken into stripes. These must be marked when in flower, and the roots separated from the

I

others

...in particular beds, and they
make by degrees a fine collection.
The culture of the Tulp, the
most delicate of all the bulbous roots: and
thus that flower will be brought to its highest
perfection. The time of its growth is long,
but the trouble is very little.

...the roots constantly clear from
weeds, and giving them a new coat of mould
every summer. This brings
them to their perfection, and the next year
they will flower. Some will flower sooner,
but they are the worst sort.

...the roots must be taken up in the sum-
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to dry. They must be kept out of the
ground till winter, and then planted in
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rounded at the top: the roots must be plant-
ed seven inches deep, and ten inches distant
from one another. The next year they will
show in perfection as to shape and figure;
but they will not come to the beauty of
their colour till after one or more years of
further growth.

Heavy season the roots will be increased
as already directed; and in every summer
showing they will be found less broken
to pieces. They must be raised when
in flower, and the roots separated from the
flower.

